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THE NATURALIST BRAZILIAN EXPEDITION.

PAPER III.—SÃO JOÃO DO MONTE NEGRO.

BY HERBERT H. SMITH.

(Continued from page 470, May number.)

THE large Felidæ are now rare near São João, but individuals of all the species are still occasionally met with. The *Felis onca*¹ here roams indifferently in the highland or lowland forest ; occasionally it attains a length of eight feet from the nose to the root of the tail, and in fierceness and strength it is probably not inferior to a lion. This species is characterized by black spots arranged in groups or circles of five or six each, on an ochre or tawny ground. Throughout Brazil there are two other species which heretofore appear to have been confounded with this one by naturalists. The first is the *onca pintada*, *Uriauara* or *onca cachorro* of the Amazons. This is quite as large as the true *onca*, and higher and thicker in proportion. The skin is readily distinguished ; the colors are nearly the same as in the *onca*, but the spots are smaller and scattered evenly—never arranged in groups. The other species is the one which is known everywhere as the *tigre*, or black tiger. It is even larger than the others, the skin being of a deep glossy brown-black, marked with still deeper spots which are arranged as in the true *onca*. The skin of these three species can always be readily distinguished, and the hunters, who, in such cases, are the best judges, declare that the mothers give birth to cubs which are similar in pattern and coloration to themselves. Very rarely, it is said, crosses between two of the kinds are seen, and it is possible that skins of these crosses, appearing in European museums, have caused the confusion of species.²

The puma, or *leao*, as it is called here (*Felis concolor*), is smaller than the *onca*, and more common ; it kills sheep and calves, but never attacks a man unless driven to bay. The hunters speak of several varieties, but do not regard them as distinct species. The puma does not cross with the three preceding kinds.

¹ Called here simply *onca*, or *jaguara* ; on the Amazons, *Yauara sororoca* ; in Matto Grosso, *Cangussú*. On the Amazons this species belongs properly to the flood-plain, while the *Uriauara* is exclusively a highland form.

² Prince Maximilian very clearly indicates the three species, but supposes that they may be varieties.

The *jaguaritica*¹ is a spotted cat, smaller than the puma; it appears to be allied to the *F. onca*, but the spots tend to run into longitudinal stripes, and the animal is never more than five feet long. Two still smaller spotted kinds are known here, one of which is marked much like the *jaguaritica*, but on a grayish instead of a yellowish ground; the other has small black spots on an ochreous ground.

Finally, there is a gray, unspotted species,² not much larger than the domestic cat. All these small species are readily tamed if taken young. We had a *jaguaritica* kitten in the house for several weeks. When brought to us it was as large as a three-months-old domestic cat, and its eyes were not yet open. It soon learned to feed from an ordinary nursing bottle, and it became very affectionate and playful, following us around, and climbing into our laps when we sat down. Its cry was like that of a domestic kitten, but shorter and sharper. We had hopes of rearing it and carrying it to the United States, but after awhile, without any visible cause, it sickened and died.

Foxes appear to be exclusively confined to the high prairies; I believe that the differences of color shown by individuals are only varietal. A kind of wild dog is found in the forest, but we did not obtain specimens, and I am unable to judge whether or not it is merely a form of the domestic dog which has run wild. The *Mao pellado* (literally bare-handed) is a reddish-brown dog-like animal, one of the commonest mammals of this region; the legs are long, and on the lower part have only very short, scattered hairs, whence the name. It is nocturnal, wandering on the ground in woods and ravines, and occasionally visiting cornfields to devour the tender ears. It also eats nestlings and eggs. Two

¹ *Onca vermelha* on the Amazons; *Pardo* in Matto Grosso. Called also *Suacurana*, a Guarany name meaning false deer.

² The two smaller spotted species and the gray one are called indiscriminately *gato do matto* or forest cat in Rio Grande do Sul and in Matto Grosso. On the Lower Amazons the small spotted species are termed *maracajás*, and only an unicolor kind is named *gato do matto*.

I have not attempted to name the species, partly because, writing in the field, I have no books of reference at hand, and partly because the nomenclature is still in confusion. There will, of course, be much difference of opinion as to what constitutes a species among these Felidæ, but so long as the various forms can be readily separated, and do not ordinarily cross with each other, it appears better to regard them as distinct. Whether they are "species" or "races" or "varieties" is a question of very little importance.

cubs are generally produced at a birth. The *Mao pellado*, if taken young, may be domesticated, but it never becomes thoroughly tame; it has a very strong, disagreeable odor, which makes it an undesirable pet.

Of the *Coatis* (*Nasua*) two species are found here as in other parts of Brazil. The larger, called *Coati-mundê*,¹ resembles a raccoon, but stands rather lower, and is readily distinguished by its long snout; the *Coati-miry*,² is smaller. Both are rather nocturnal in their habits, and rather frugiferous than carnivorous; two cubs are produced at a birth. Tame coatis are often seen, but as they are very mischievous and rather ill-natured, they are generally kept chained.

Two kinds of otters, the *lontra* and the *ariranha*, are occasionally seen about the rivers. The *lontra* appears to be identical with the Amazonian species of the same name. It never wanders far from the stream or river in which it lives, and when alarmed it quickly takes to the water, swimming at the surface and raising its head to stare at the intruder with a short bark. These otters, if taken young, become very tame, and they may be taught to bring in fish. I knew of one on the Lower Amazons which accompanied the village boys in their frequent baths, diving about with them and evidently enjoying the fun. The *ariranha* is much larger, and when swimming against the current it often advances by a series of leaps above the water; in this way it will distance a steamer. In Matto Grosso I have seen two of these animals keep before an ascending steamer in a swift river for more than an hour.

A small skunk is found along the borders of woods, but I do not think that it is properly a forest animal. Its habits are similar to that of the North American skunks, but though its scent-gland is well developed it is seldom used. On one occasion a living specimen was brought to us in a sack; we allowed it to run about the floor and found that it had hardly any unpleasant odor; even when we killed it, it did not attempt to use its characteristic defensive weapon. It may be that the gland only becomes active at certain periods.

Capivaras³ are still common by the river-shore, where they

¹ In Guarany, literally the trap-coati; corrupted to *Coati-mundi* or *mundêo*.

² Guarany, little Coati.

³ From the Tupy-Guarany *iaapê*, grass; *uára*, that lives in or among.

subsist principally on grass and leaves ; they are very stupid and tame, and so heavy in their movements that it is no difficult matter to catch them alive. When pursued they generally take to the water, swimming with part of the head above the surface. I have frequently seen Capivaras running about with cattle, and in less populous districts they will allow a man to pass within a few yards of them without showing alarm. Living specimens are sometimes seen about houses, but they can never be thoroughly tamed. The skin is prized for making whips and cords ; it has a black outer cuticle which scales off soon after the animal is killed, so that it is difficult to obtain a perfect specimen. The flesh is considered unfit for food, owing to its unpleasant flavor ; but when the animal is skinned and cleaned soon after its death, this is not noticeable ; the meat is then very good, as I can attest. The female Capivara is generally seen with several young, all of different sizes, though it is said that they have only one or two at a birth. If the common reports are true, conception must take place several times during gestation. An intelligent hunter assured me that he had found six fœti, all of different sizes, in the womb of a Capivara ; the largest was on the point of being born, and he succeeded in keeping it alive for several weeks. I have heard similar stories from other quarters ; but other hunters deny their truth, and say that from six to ten young Capivaras are produced at one birth.

Allied to the Capivara, and resembling it in form, are two small rodents, the *priá* and the *micó*, both found on the Campo ; the latter, it would appear, extends northward as far as the River Parnahyba, but it is rare in Rio Grande do Sul, where the *priá* is common.

Pacas are the largest forest rodents, they are now rare in this part of the province, their excellent meat causing them to be sought after by the hunters. They are properly nocturnal, eating fruits and roots. Of the allied Cotias there appear to be two kinds here, and I am inclined to think that many species, differing in slight but constant characters, will be found in South America. The Cotias are diurnal, and subsist on fruits. Of other rodents we collected only a small blackish squirrel, a porcupine and a curious forest rat with a very elongated body ; all of these are rare, and I could learn nothing of their habits. A small rabbit is found on the Campos, and there is a kind of rat

(*rato da taquara*) which occasionally appears in immense numbers, though it is generally very rare.

Tapirs, or *antas*,¹ are now very rare near São João, though they are common in the less settled parts of the province; in the equatorial forests of Brazil they are among the most abundant animals. They wander only in the high forest, coming to streams at night to drink and wallow; their food consists of leaves and fruits.

Tapirs are readily tamed, and they are rather affectionate and intelligent pets. A friend of mine once suffered a terrible fright from a tame tapir. He was passing the night at a Brazilian house where one of these animals was allowed to roam about at will. My friend slept in a hammock, whence, about midnight, he was very rudely ejected by a large animal which attempted to pass underneath him; as the hammock hung low, the animal's back acted on it like an earthquake, and the sleeper tumbled out. Awakened thus suddenly, he threw out his hands, to find them in contact with a rough, cold skin. A yell of terror brought the other inmates of the house, and the offending tapir was ignominiously dragged away; but my friend did not soon recover from his fright.

The two kinds of wild hogs found here seem to correspond with the species (*taiassú* and *caititú*) found on the Amazons and in Matto Grosso. Both wander in small droves, eating fruits and roots; they are seldom seen on the open lands, and when found there they quickly seek refuge in the forest. Once under the trees they are apt to show fight, facing the hunter and gnashing their long tusks. Their meat is very good.

Two kinds of ant-eaters, the large *Tamanduá bandeira*² and the medium-sized *Tamanduá pequeno* are found here; the first appears to walk only on 'the ground, but the *tamanduá pequeno* often climbs trees in search of ants' nests. The small nocturnal climbing species does not appear to be found here. In a wild state the tamanduás seem to feed only on termites and insect larvæ, but they may be tamed, and they will then eat rice and bread. We

¹ Our word tapir, the Latin *tapirus* and the French *tapir* come from the Tupy-Guarany name *tapiira* or *tapiir*. *Anta* in Portuguese means an elk.

² Bannerant-eater, in allusion to its broad, spreading tail, which it often holds over its back; on the Amazons it is also called *tamanduá-assú*, the great ant-eater. *Tamanduá* appears to be derived from the Tupy-Guarany *taá*, an ant, and *mundê*, a trap.

once kept a young *Tamanduá pequeno* in the house for two or three weeks, feeding it on milk, which it sucked or lapped from a saucer. It became quite tame, following us about awkwardly by walking on the sides of its feet; if allowed to do so it would climb to our laps, clinging tenaciously to trousers or skirt by holding the cloth with its strong hooked claws turned back on the palms. Though this specimen was a mere baby the claws were formidably strong, and after one or two trials none of us cared to trust our fingers to them. When first brought to the house it expressed its fear by short whines or grunts, and afterward it gave vent to similar cries when hungry. It was fond of heat, often stretching itself on the ground in the sunshine with all four legs wide apart. Like all young specimens this was much paler in color than the adults, approaching to yellowish-white. Occasionally old tamanduás are found with the same tint, and the hunters regard these as a distinct species, but I believe that they are albinic varieties.

Three kinds of armadillos or *tatus* are mentioned by the hunters in Rio Grande; of these we obtained two, belonging to different genera. The larger, which sometimes grows to a length of three feet, seems to be almost exclusively a feeder on carrion; it makes deep burrows, breaking the earth with its strong claws, and sometimes it is said digging into graves. The other is much smaller, never more than eighteen inches long, and it feeds on white ants, small fruits and so on; tame ones make most amusing pets, running about the house and poking their inquisitive noses into every crevice. This kind is eaten, the meat being white and very good; but it is a singular fact that dogs will not touch it. A still smaller *tatú*, sometimes seen here, is characterized by a truncated and somewhat hairy shell. All these species live in clearings, *fachinal* forest or open campo; never, I believe, in the main forest.

A large opossum is common in the woods, living in hollow trees and eating small birds, etc. It is strictly nocturnal, and apparently is quite unable to see during the day time; the hunters generally take it alive, carrying it by the tail. When tormented it hisses much like a goose, and tries to bite. It is exceedingly tenacious of life, living after its back bone and skull are both broken; I have even known one to live for some time, and attempt to walk and bite, after its heart was taken out.

A female opossum was brought to us with six well-grown young ones, as large as three weeks' old kittens ; they clung to the mother's back, twisting their prehensile tails around hers, and apparently looking upon her as their protector ; but during the succeeding night they all escaped through a hole, leaving the mother, who could not follow, behind. One or two small opossum rats are also met with ; they climb over the small branches of trees and, like the large species, are unable to see in the daytime. I could learn nothing of their habits.

Passing by some less interesting species, I may here devote a page to our tame monkey, Bildad or Billy as we generally called him. This was a very small gray marmoset from Pernambuco, which I had bought of a sailor in Rio de Janeiro. Being much petted, and allowed to run about as he pleased, he became very tame ; rather an unusual thing with this genus, for the marmosets are generally rather wild and timid. Even at his best Billy was somewhat fractious, always biting if we attempted to seize him, though he came to us readily enough if we offered a hand. He was especially attached to my wife, spending hours on her shoulder or on her head, his four arms spread out and his hands clinging fast to her hair ; if she put her hat on over him so much the better, if neither head nor shoulder could be had he would crawl up a sleeve or under a vest, always turning to poke his inquisitive face out to see if we were observing him. When in a playful mood he delighted, as a child might, in a game of "peek-a boo," dodging from side to side behind a cushion and keeping up the game as long as anybody would dodge after him. About once a day Billy was seized with a wild spirit of fun and a tremendous romp took place. He would leap from one to the other, rushing over us from feet to head, snapping at our noses, pulling our eye-winkers, playing bo-peep from our sleeves, and throwing himself on his back to bite his own toes in an ecstasy of enjoyment. Suddenly, in the midst of a rush, he would stop short, draw back the corners of his eyes, and make an indescribable face at one of his observers ; seen for the thousandth time this always provoked us to shouts of laughter, whereat Billy would scuttle away and turn a somersault on the bed. Sometimes for a joke we would put him inside of a large trumpet-flower or in a lamp-chimney or tumbler, and he seemed rather to enjoy his imprisonment. When left to his own resources he ran about the house, sunned himself in a neighboring tree, or

caught flies by approaching them very slowly and grabbing them with one hand. If long neglected he became aggrieved; then he would find some conspicuous perch and give vent to his troubles in a series of shrill screams. If still unnoticed he would scream yet louder, his face expressing, as only a marmoset's can, the depth of his feelings; the hair on his forehead standing on end, and his whole body trembling with rage. But the exceeding force of his vocal powers was only displayed when we punished him, or when—rare and dreadful occurrence—he was washed; then indeed his lamentations became shrieks and every line of his face evinced his abhorrence and wrath. On such occasions Billy could only be appeased with a comb; for to be combed was his idea of perfect happiness. As soon as he felt the delightful touch all sounds would cease; with eyes fixed on vacancy and face expressive of speechless bliss, he would stretch out all four arms and lie quite still as long as we pleased to comb him. He would then submit to lie on his back while his breast was combed, or he would cling with his two front hands to a friendly finger, and with two hinder hands to a chair, while his body was stretched to its utmost length; he would even hang by his hinder hands with his head down, or let us hold him up by the tail.

Billy, having never known a wild life, cared nothing for liberty; if lost in the forest, as happened once or twice, he soon brought us to him by his screams. He slept in a little basket, but generally broke out before morning and climbed to my wife's bed, nesting on her shoulder. Sometimes we carried him in the basket while on our journeys, and he was always well contented so long as he felt that he was moving; but if we laid the basket down he presently broke into his usual heart-rending jeremiad. Our first attempt to carry him on horseback resulted well until Billy noticed the horse; then a scream of terror was followed by a wild rush for some hiding place, and he eventually took refuge in the top of one of my great riding-boots. He was intensely afraid of cats and dogs, but cared nothing about birds, turtles or snakes. We had a tame land-tortoise which sometimes shared Billy's basket and the tortoise was frequently robbed of his dinner by its room mate, who would sit on its back and coolly devour the spoil. The monkey ate almost any vegetable, and even a little meat; he was especially fond of almonds and of cheese, both of which generally resulted in indigestion. He also had an

undue fondness for tragacanth paste, which we sometimes used in our work, and if we covered the paste cup he would spend hours trying to pry the cover off. Being spoiled, he was rather saucy, considering that he had the first right to every dish on our table, and helping himself without ceremony, especially to the sugar and milk; brandy he would take if it was well sweetened. Once or twice, while we were living at a hotel, Billy broke loose at dinner time and astonished the boarders by racing over the table to my wife's chair, ending by sitting on her shoulder and making one of his inimitable faces at the assembled people. One day when he occupied his usual place near us a nicely ornamented boar's head was brought in with grinning jaws and staring eyes made of lemons and olives; the monkey, who had never seen the like, put out both hands as if toward the apparition and retreated with a yell to the farthest corner of the room, whence he was taken trembling.

When we first brought him home Billy's curiosity was much excited by the looking-glass in which he saw, as he supposed, another monkey; having tried in vain to reach his playmate from the front, he looked around the glass and was evidently disappointed at finding nothing there; this performance was repeated at intervals for some days, but after awhile he became accustomed to the phenomenon and did not notice it further. He was fond of bright colors, gilt buttons, glass beads and the like; often he tried to pick the flowers from my wife's muslin dress; grasshoppers and beetles were a treat to him, though he seemed to care more about tearing them to bits than eating them; he learned after repeated punishments that he must not touch our collections, though he sometimes stole a specimen on the sly.

As the cold weather came on Billy grew sickly, keeping much to the shelter of his basket. One morning he woke in strong convulsions, which were followed by others in quick succession. Coming out of the last he lay quiet for a moment and we had hopes of saving him; but, as my wife extended her hand to him, he stood up with an effort, made one of his drollest faces at her, and fell over dead. I suppose that there was not a dry eye in the house when we buried him—my wife had resented as sacrilege the idea of saving his skin for a specimen—and we all agreed that no more playful and affectionate pet had ever been seen. Weeks afterwards I found my wife furtively placing flowers on his grave.¹

¹ I have tried to describe the marmoset's habits accurately and literally, and no part of the account is exaggerated.